

1. At least one isolated mammalian anti-dual integrin antibody, comprising at least one variable region comprising SEQ ID NO:7 or 8.

5 binds dual integrin with an affinity of at least one selected from at least  $10^{-9}$  M, at least  $10^{-10}$  M, at least  $10^{-11}$  M, or at least  $10^{-12}$  M.

3. An dual integrin antibody according to claim 1, wherein said antibody substantially neutralizes at least one activity of at least one dual integrin protein.

10 dual integrin antibody having at least one variable region comprising SEQ ID NO:7 or 8.

5. An isolated nucleic acid vector comprising an isolated nucleic acid according to claim 4.

6. A prokaryotic or eukaryotic host cell comprising an isolated nucleic acid according to claim 5.

15                    7. A host cell according to claim 6, wherein said host cell is at least one  
selected from COS-1, COS-7, HEK293, BHK21, CHO, BSC-1, Hep G2, 653, SP2/0, 293, HeLa,  
myeloma, or lymphoma cells, or any derivative, immortalized or transformed cell thereof.

20 in situ, such that the dual integrin antibody is expressed in detectable or recoverable amounts.

9. A composition comprising at least one isolated mammalian anti-dual integrin antibody having at least one variable region comprising SEQ ID NO:7 or 8, and at least one pharmaceutically acceptable carrier or diluent.

25 composition comprising an effective amount of at least one compound or protein selected from  
at least one of a detectable label or reporter, a TNF antagonist, an antirheumatic, a muscle  
relaxant, a narcotic, a non-steroid anti-inflammatory drug (NSAID), an analgesic, an  
anesthetic, a sedative, a local anesthetic, a neuromuscular blocker, an antimicrobial, an  
antipsoriatic, a corticosteroid, an anabolic steroid, an erythropoietin, an immunization, an  
30 immunoglobulin, an immunosuppressive, a growth hormone, a hormone replacement drug, a  
radiopharmaceutical, an antidepressant, an antipsychotic, a stimulant, an asthma medication, a  
beta agonist, an inhaled steroid, an epinephrine or analog, a cytokine, or a cytokine antagonist.

35 comprising SEQ ID NO:7 or 8.

12 . A method for diagnosing or treating a dual integrin related condition in a cell, tissue, organ or animal, comprising

(a) contacting or administering a composition comprising an effective amount of at least one isolated mammalian anti-dual integrin antibody having at least one variable region comprising SEQ ID NO:7 or 8, with, or to, said cell, tissue, organ or animal.

13 . A method according to claim 12, wherein said effective amount is 0.001-50 mg/kilogram of said cells, tissue, organ or animal.

14 . A method according to claim 12, wherein said contacting or said administering is by at least one mode selected from parenteral, subcutaneous, intramuscular, intravenous, intrarticular, intrabronchial, intraabdominal, intracapsular, intracartilaginous, intracavitary, intracelial, intracelebellar, intracerebroventricular, intracolic, intracervical, intragastric, intrahepatic, intramyocardial, intraosteal, intrapelvic, intrapericardiac, intraperitoneal, intrapleural, intraprostatic, intrapulmonary, intrarectal, intrarenal, intraretinal, intraspinal, intrasynovial, intrathoracic, intrauterine, intravesical, bolus, vaginal, rectal, buccal, sublingual, intranasal, or transdermal.

15 15 . A method according to claim 12, further comprising administering, prior, concurrently or after said (a) contacting or administering, at least one composition comprising an effective amount of at least one compound or protein selected from at least one of a detectable label or reporter, a TNF antagonist, an antirheumatic, a muscle relaxant, a narcotic, a non-steroid anti-inflammatory drug (NSAID), an analgesic, an anesthetic, a sedative, a local anesthetic, a neuromuscular blocker, an antimicrobial, an antipsoriatic, a corticosteroid, an anabolic steroid, an erythropoietin, an immunization, an immunoglobulin, an immunosuppressive, a growth hormone, a hormone replacement drug, a radiopharmaceutical, an antidepressant, an antipsychotic, a stimulant, an asthma medication, a beta agonist, an inhaled steroid, an epinephrine or analog, a cytokine, or a cytokine antagonist.

16 . A medical device, comprising at least one isolated mammalian anti-dual integrin antibody having at least one variable region comprising SEQ ID NO:7 or 8, wherein said device is suitable to contacting or administering said at least one anti-dual integrin antibody by at least one mode selected from parenteral, subcutaneous, intramuscular, intravenous, intrarticular, intrabronchial, intraabdominal, intracapsular, intracartilaginous, intracavitary, intracelial, intracelebellar, intracerebroventricular, intracolic, intracervical, intragastric, intrahepatic, intramyocardial, intraosteal, intrapelvic, intrapericardiac, intraperitoneal, intrapleural, intraprostatic, intrapulmonary, intrarectal, intrarenal, intraretinal, intraspinal, intrasynovial, intrathoracic, intrauterine, intravesical, bolus, vaginal, rectal, buccal, sublingual, intranasal, or transdermal.

17. An article of manufacture for human pharmaceutical or diagnostic use, comprising packaging material and a container comprising a solution or a lyophilized form of at least one isolated mammalian anti-dual integrin antibody having at least one variable region comprising SEQ ID NO:7 or 8.

18. The article of manufacture of claim 17, wherein said container is a component of a parenteral, subcutaneous, intramuscular, intravenous, intrarticular, intrabronchial, intraabdominal, intracapsular, intracartilaginous, intracavitary, intracelial, intracelebellar, intracerebroventricular, intracolic, intracervical, intragastric, intrahepatic, intramyocardial, intraosteal, intrapelvic, intrapericardiac, intraperitoneal, intrapleural, intraprostatic, intrapulmonary, intrarectal, intrarenal, intraretinal, intraspinal, intrasynovial, intrathoracic, intrauterine, intravesical, bolus, vaginal, rectal, buccal, sublingual, intranasal, or transdermal delivery device or system.

19. A method for producing at least one isolated mammalian anti-dual integrin antibody having at least one variable region comprising SEQ ID NO:7 or 8, comprising providing a host cell or transgenic animal or transgenic plant or plant cell capable of expressing in recoverable amounts said antibody.

20. At least one anti-dual integrin antibody produced by a method according to claim 19.

21. At least one isolated mammalian anti-dual integrin antibody, comprising either (i) all of the heavy chain complementarity determining regions (CDR) amino acid sequences of SEQ ID NOS:1, 2, and 3; or (ii) all of the light chain CDR amino acids sequences of SEQ ID NOS:4, 5, and 6.

22. An dual integrin antibody according to claim 21, wherein said antibody binds dual integrin with an affinity of at least one selected from at least  $10^{-9}$  M, at least  $10^{-10}$  M, at least  $10^{-11}$  M, or at least  $10^{-12}$  M.

23. An dual integrin antibody according to claim 21, wherein said antibody substantially neutralizes at least one activity of at least one dual integrin protein.

24. An isolated nucleic acid encoding at least one isolated mammalian anti-dual integrin antibody either (i) all of the heavy chain CDR amino acid sequences of SEQ ID NOS:1, 2, and 3; or (ii) all of the light chain CDR amino acids sequences of SEQ ID NOS:4, 5, and 6.

25. An isolated nucleic acid vector comprising an isolated nucleic acid according to claim 4.

26. A prokaryotic or eukaryotic host cell comprising an isolated nucleic acid according to claim 25.

27. A host cell according to claim 26, wherein said host cell is at least one selected from COS-1, COS-7, HEK293, BHK21, CHO, BSC-1, Hep G2, 653, SP2/0, 293, HeLa, myeloma, or lymphoma cells, or any derivative, immortalized or transformed cell thereof.

5 28. A method for producing at least one anti-dual integrin antibody, comprising translating a nucleic acid according to claim 24 under conditions in vitro, in vivo or in situ, such that the dual integrin antibody is expressed in detectable or recoverable amounts.

10 29. A composition comprising at least one isolated mammalian anti-dual integrin antibody having either (i) all of the heavy chain CDR amino acid sequences of SEQ ID NOS: 1,2 and 3; or (ii) all of the light chain CDR amino acids sequences of SEQ ID NOS: 4, 5, and 6, and at least one pharmaceutically acceptable carrier or diluent.

15 30. A composition according to claim 29, further comprising at least one composition comprising an effective amount of at least one compound or protein selected from at least one of a detectable label or reporter, a TNF antagonist, an antirheumatic, a muscle relaxant, a narcotic, a non-steroid anti-inflammatory drug (NSAID), an analgesic, an anesthetic, a sedative, a local anesthetic, a neuromuscular blocker, an antimicrobial, an antipsoriatic, a corticosteroid, an anabolic steroid, an erythropoietin, an immunization, an immunoglobulin, an immunosuppressive, a growth hormone, a hormone replacement drug, a  
20 radiopharmaceutical, an antidepressant, an antipsychotic, a stimulant, an asthma medication, a beta agonist, an inhaled steroid, an epinephrine or analog, a cytokine, or a cytokine antagonist.

25 31. An anti-idiotypic antibody or fragment that specifically binds at least one isolated mammalian anti-dual integrin antibody having either (i) all of the heavy chain CDR amino acid sequences of SEQ ID NOS:1, 2, and 3; or (ii) all of the light chain CDR amino acids sequences of SEQ ID NOS:4, 5, and 6.

32. A method for diagnosing or treating a dual integrin related condition in a cell, tissue, organ or animal, comprising

(a) contacting or administering a composition comprising an effective amount of at least one isolated mammalian anti-dual integrin antibody having either (i) all of the heavy  
30 chain CDR amino acid sequences of SEQ ID NOS:1, 2, and 3; or (ii) all of the light chain CDR amino acids sequences of SEQ ID NOS:4, 5, and 6, with, or to, said cell, tissue, organ or animal.

33. A method according to claim 32, wherein said effective amount is 0.001-50 mg/kilogram of said cells, tissue, organ or animal.

34 . A method according to claim 32, wherein said contacting or said administering is by at least one mode selected from parenteral, subcutaneous, intramuscular, intravenous, intrarticular, intrabronchial, intraabdominal, intracapsular, intracartilaginous, intracavitary, intracelial, intracelebellar, intracerebroventricular, intracolic, intracervical, intragastric, intrahepatic, intramyocardial, intraosteal, intrapelvic, intrapericardiac, intraperitoneal, intrapleural, intraprostatic, intrapulmonary, intrarectal, intrarenal, intraretinal, intraspinal, intrasynovial, intrathoracic, intrauterine, intravesical, bolus, vaginal, rectal, buccal, sublingual, intranasal, or transdermal.

35 . A method according to claim 32, further comprising administering, prior, concurrently or after said (a) contacting or administering, at least one composition comprising an effective amount of at least one compound or protein selected from at least one of a detectable label or reporter, a TNF antagonist, an antirheumatic, a muscle relaxant, a narcotic, a non-steroid anti-inflammatory drug (NSAID), an analgesic, an anesthetic, a sedative, a local anesthetic, a neuromuscular blocker, an antimicrobial, an antipsoriatic, a corticosteroid, an anabolic steroid, an erythropoietin, an immunization, an immunoglobulin, an immunosuppressive, a growth hormone, a hormone replacement drug, a radiopharmaceutical, an antidepressant, an antipsychotic, a stimulant, an asthma medication, a beta agonist, an inhaled steroid, an epinephrine or analog, a cytokine, or a cytokine antagonist.

36 . A medical device, comprising at least one isolated mammalian anti-dual integrin antibody having either (i) all of the heavy chain CDR amino acid sequences of SEQ ID NOS:1, 2, and 3; or (ii) all of the light chain CDR amino acids sequences of SEQ ID NOS:4, 5, and 6, wherein said device is suitable to contacting or administering said at least one anti-dual integrin antibody by at least one mode selected from parenteral, subcutaneous, intramuscular, intravenous, intrarticular, intrabronchial, intraabdominal, intracapsular, intracartilaginous, intracavitary, intracelial, intracelebellar, intracerebroventricular, intracolic, intracervical, intragastric, intrahepatic, intramyocardial, intraosteal, intrapelvic, intrapericardiac, intraperitoneal, intrapleural, intraprostatic, intrapulmonary, intrarectal, intrarenal, intraretinal, intraspinal, intrasynovial, intrathoracic, intrauterine, intravesical, bolus, vaginal, rectal, buccal, sublingual, intranasal, or transdermal.

37 . An article of manufacture for human pharmaceutical or diagnostic use, comprising packaging material and a container comprising a solution or a lyophilized form of at least one isolated mammalian anti-dual integrin antibody having either (i) all of the heavy chain CDR amino acid sequences of SEQ ID NOS:1, 2, and 3; or (ii) all of the light chain CDR amino acids sequences of SEQ ID NOS:4, 5, and 6.

38 . The article of manufacture of claim 37, wherein said container is a component of a parenteral, subcutaneous, intramuscular, intravenous, intrarticular,

intrabronchial, intraabdominal, intracapsular, intracartilaginous, intracavitary, intracelial, intracelebellar, intracerebroventricular, intracolic, intracervical, intragastric, intrahepatic, intramyocardial, intraosteal, intrapelvic, intrapericardiac, intraperitoneal, intrapleural, intraprostatic, intrapulmonary, intrarectal, intrarenal, intraretinal, intraspinal, intrasynovial, intrathoracic, intrauterine, intravesical, bolus, vaginal, rectal, buccal, sublingual, intranasal, or transdermal delivery device or system.

39. A method for producing at least one isolated mammalian anti-dual integrin antibody having either (i) all of the heavy chain CDR amino acid sequences of SEQ ID NOS:1, 2, and 3; or (ii) all of the light chain CDR amino acids sequences of SEQ ID NOS:4, 5, and 6, comprising providing a host cell or transgenic animal or transgenic plant or plant cell capable of expressing in recoverable amounts said antibody.

40. At least one anti-dual integrin antibody produced by a method according to claim 39.

41. At least one isolated mammalian anti-dual integrin antibody, comprising at least one heavy chain or light chain CDR having the amino acid sequence of at least one of SEQ ID NOS: 1, 2, 3, 4, 5, or 6.

42. An dual integrin antibody according to claim 41, wherein said antibody binds dual integrin with an affinity of at least one selected from at least  $10^{-9}$  M, at least  $10^{-10}$  M, at least  $10^{-11}$  M, or at least  $10^{-12}$  M.

43. An dual integrin antibody according to claim 41, wherein said antibody substantially neutralizes at least one activity of at least one dual integrin protein.

44. An isolated nucleic acid encoding at least one isolated mammalian anti-dual integrin antibody having at least one heavy chain or light chain CDR having the amino acid sequence of at least one of SEQ ID NOS: 1, 2, 3, 4, 5, or 6.

45. An isolated nucleic acid vector comprising an isolated nucleic acid according to claim 44.

46. A prokaryotic or eukaryotic host cell comprising an isolated nucleic acid according to claim 45.

47. A host cell according to claim 46, wherein said host cell is at least one selected from COS-1, COS-7, HEK293, BHK21, CHO, BSC-1, Hep G2, 653, SP2/0, 293, HeLa, myeloma, or lymphoma cells, or any derivative, immortalized or transformed cell thereof.

48. A method for producing at least one anti-dual integrin antibody, comprising translating a nucleic acid according to claim 44 under conditions in vitro, in vivo or in situ, such that the dual integrin antibody is expressed in detectable or recoverable amounts.

49 . A composition comprising at least one isolated mammalian anti-dual integrin antibody having at least one heavy chain or light chain CDR having the amino acid sequence of at least one of SEQ ID NOS: 1, 2, 3, 4, 5, or 6, and at least one pharmaceutically acceptable carrier or diluent.

50 . A composition according to claim 49, further comprising at least one composition comprising an effective amount of at least one compound or protein selected from at least one of a detectable label or reporter, a TNF antagonist, an antirheumatic, a muscle relaxant, a narcotic, a non-steroid anti-inflammatory drug (NSAID), an analgesic, an anesthetic, a sedative, a local anesthetic, a neuromuscular blocker, an antimicrobial, an antipsoriatic, a corticosteroid, an anabolic steroid, an erythropoietin, an immunization, an immunoglobulin, an immunosuppressive, a growth hormone, a hormone replacement drug, a radiopharmaceutical, an antidepressant, an antipsychotic, a stimulant, an asthma medication, a beta agonist, an inhaled steroid, an epinephrine or analog, a cytokine, or a cytokine antagonist.

51 . An anti-idiotypic antibody or fragment that specifically binds at least one isolated mammalian anti-dual integrin antibody having at least one heavy chain or light chain CDR having the amino acid sequence of at least one of SEQ ID NOS: 1, 2, 3, 4, 5, or 6.

52 . A method for diagnosing or treating a dual integrin related condition in a cell, tissue, organ or animal, comprising

(a) contacting or administering a composition comprising an effective amount of at least one isolated mammalian anti-dual integrin antibody having at least one heavy chain or light chain CDR having the amino acid sequence of at least one of SEQ ID NOS: 1, 2, 3, 4, 5, or 6, with, or to, said cell, tissue, organ or animal.

53 . A method according to claim 52, wherein said effective amount is 0.001-50 mg/kilogram of said cells, tissue, organ or animal.

54 . A method according to claim 52, wherein said contacting or said administering is by at least one mode selected from parenteral, subcutaneous, intramuscular, intravenous, intrarticular, intrabronchial, intraabdominal, intracapsular, intracartilaginous, intracavitary, intracelial, intracelebellar, intracerebroventricular, intracolonic, intracervical, intragastric, intrahepatic, intramyocardial, intraosteal, intrapelvic, intrapericardiac, intraperitoneal, intrapleural, intraprostatic, intrapulmonary, intrarectal, intrarenal, intraretinal, intraspinal, intrasynovial, intrathoracic, intrauterine, intravesical, bolus, vaginal, rectal, buccal, sublingual, intranasal, or transdermal.

55 . A method according to claim 52, further comprising administering, prior, concurrently or after said (a) contacting or administering, at least one composition comprising an effective amount of at least one compound or protein selected from at least one of a detectable label or reporter, a TNF antagonist, an antirheumatic, a muscle relaxant, a

narcotic, a non-steroid anti-inflammatory drug (NSAID), an analgesic, an anesthetic, a sedative, a local anesthetic, a neuromuscular blocker, an antimicrobial, an antipsoriatic, a corticosteroid, an anabolic steroid, an erythropoietin, an immunization, an immunoglobulin, an immunosuppressive, a growth hormone, a hormone replacement drug, a radiopharmaceutical, an antidepressant, an antipsychotic, a stimulant, an asthma medication, a beta agonist, an inhaled steroid, an epinephrine or analog, a cytokine, or a cytokine antagonist.

56. A medical device, comprising at least one isolated mammalian anti-dual integrin antibody having at least one heavy chain or light chain CDR having the amino acid sequence of at least one of SEQ ID NOS: 1, 2, 3, 4, 5, or 6, wherein said device is suitable to contacting or administering said at least one anti-dual integrin antibody by at least one mode selected from parenteral, subcutaneous, intramuscular, intravenous, intrarticular, intrabronchial, intraabdominal, intracapsular, intracartilaginous, intracavitary, intracelal, intracelebellar, intracerebroventricular, intracolic, intracervical, intragastric, intrahepatic, intramyocardial, intraosteal, intrapelvic, intrapericardiac, intraperitoneal, intrapleural, intraprostatic, intrapulmonary, intrarectal, intrarenal, intraretinal, intraspinal, intrasynovial, intrathoracic, intrauterine, intravesical, bolus, vaginal, rectal, buccal, sublingual, intranasal, or transdermal.

57. An article of manufacture for human pharmaceutical or diagnostic use, comprising packaging material and a container comprising a solution or a lyophilized form of at least one isolated mammalian anti-dual integrin antibody having at least one heavy chain or light chain CDR having the amino acid sequence of at least one of SEQ ID NOS: 1, 2, 3, 4, 5, or 6.

58. The article of manufacture of claim 57, wherein said container is a component of a parenteral, subcutaneous, intramuscular, intravenous, intrarticular, intrabronchial, intraabdominal, intracapsular, intracartilaginous, intracavitary, intracelal, intracelebellar, intracerebroventricular, intracolic, intracervical, intragastric, intrahepatic, intramyocardial, intraosteal, intrapelvic, intrapericardiac, intraperitoneal, intrapleural, intraprostatic, intrapulmonary, intrarectal, intrarenal, intraretinal, intraspinal, intrasynovial, intrathoracic, intrauterine, intravesical, bolus, vaginal, rectal, buccal, sublingual, intranasal, or transdermal delivery device or system.

59. A method for producing at least one isolated mammalian anti-dual integrin antibody having at least one heavy chain or light chain CDR having the amino acid sequence of at least one of SEQ ID NOS: 1, 2, 3, 4, 5, or 6, comprising providing a host cell or transgenic animal or transgenic plant or plant cell capable of expressing in recoverable amounts said antibody.



60 . At least one anti-dual integrin antibody produced by a method according to claim 59.

61 . At least one isolated mammalian anti-dual integrin antibody that binds to the same region of a dual integrin protein as an antibody comprising at least one heavy chain or light chain CDR having the amino acid sequence of at least one of SEQ ID NOS: 1, 2, 3, 4, 5, or 6.

62 . An dual integrin antibody according to claim 61, wherein said antibody binds dual integrin with an affinity of at least one selected from at least  $10^{-9}$  M, at least  $10^{-10}$  M, at least  $10^{-11}$  M, or at least  $10^{-12}$  M.

63 . An dual integrin antibody according to claim 61, wherein said antibody substantially neutralizes at least one activity of at least one dual integrin protein.

64 . An isolated nucleic acid encoding at least one isolated mammalian anti-dual integrin antibody that binds to the same region of a dual integrin protein as an antibody comprising at least one heavy chain or light chain CDR having the amino acid sequence of at least one of SEQ ID NOS: 1, 2, 3, 4, 5, or 6.

65 . An isolated nucleic acid vector comprising an isolated nucleic acid according to claim 64.

66 . A prokaryotic or eukaryotic host cell comprising an isolated nucleic acid according to claim 65.

67 . A host cell according to claim 66, wherein said host cell is at least one selected from COS-1, COS-7, HEK293, BHK21, CHO, BSC-1, Hep G2, 653, SP2/0, 293, HeLa, myeloma, or lymphoma cells, or any derivative, immortalized or transformed cell thereof.

68 . A method for producing at least one anti-dual integrin antibody, comprising translating a nucleic acid according to claim 64 under conditions in vitro, in vivo or in situ, such that the dual integrin antibody is expressed in detectable or recoverable amounts.

69 . A composition comprising at least one isolated mammalian anti-dual integrin antibody that binds to the same region of a dual integrin protein as an antibody comprising at least one heavy chain or light chain CDR having the amino acid sequence of at least one of SEQ ID NOS: 1, 2, 3, 4, 5, or 6, and at least one pharmaceutically acceptable carrier or diluent.

70 . A composition according to claim 69, further comprising at least one composition comprising an effective amount of at least one compound or protein selected from at least one of a detectable label or reporter, a TNF antagonist, an antirheumatic, a muscle relaxant, a narcotic, a non-steroid anti-inflammatory drug (NSAID), an analgesic, an anesthetic, a sedative, a local anesthetic, a neuromuscular blocker, an antimicrobial, an

antipsoriatic, a corticosteriod, an anabolic steroid, an erythropoietin, an immunization, an immunoglobulin, an immunosuppressive, a growth hormone, a hormone replacement drug, a radiopharmaceutical, an antidepressant, an antipsychotic, a stimulant, an asthma medication, a beta agonist, an inhaled steroid, an epinephrine or analog, a cytokine, or a cytokine antagonist.

71 . An anti-idiotypic antibody or fragment that specifically binds at least one isolated mammalian anti-dual integrin antibody that binds to the same region of a dual integrin protein as an antibody comprising at least one heavy chain or light chain CDR having the amino acid sequence of at least one of SEQ ID NOS: 1, 2, 3, 4, 5, or 6.

72 . A method for diagnosing or treating a dual integrin related condition in a cell, tissue, organ or animal, comprising

(a) contacting or administering a composition comprising an effective amount of at least one isolated mammalian anti-dual integrin antibody that binds to the same region of a dual integrin protein as an antibody comprising at least one heavy chain or light chain CDR having the amino acid sequence of at least one of SEQ ID NOS: 1, 2, 3, 4, 5, or 6, with, or to, said cell, tissue, organ or animal.

73 . A method according to claim 72, wherein said effective amount is 0.001-50 mg/kilogram of said cells, tissue, organ or animal.

74 . A method according to claim 72, wherein said contacting or said administering is by at least one mode selected from parenteral, subcutaneous, intramuscular, intravenous, intrarticular, intrabronchial, intraabdominal, intracapsular, intracartilaginous, intracavitary, intracelical, intracerebellar, intracerebroventricular, intracolic, intracervical, intragastric, intrahepatic, intramyocardial, intraosteal, intrapelvic, intrapericardiac, intraperitoneal, intrapleural, intraprostatic, intrapulmonary, intrarectal, intrarenal, intraretinal, intraspinal, intrasynovial, intrathoracic, intrauterine, intravesical, bolus, vaginal, rectal, buccal, sublingual, intranasal, or transdermal.

75 . A method according to claim 72, further comprising administering, prior, concurrently or after said (a) contacting or administering, at least one composition comprising an effective amount of at least one compound or protein selected from at least one of a detectable label or reporter, a TNF antagonist, an antirheumatic, a muscle relaxant, a narcotic, a non-steroid anti-inflammatory drug (NSAID), an analgesic, an anesthetic, a sedative, a local anesthetic, a neuromuscular blocker, an antimicrobial, an antipsoriatic, a corticosteriod, an anabolic steroid, an erythropoietin, an immunization, an immunoglobulin, an immunosuppressive, a growth hormone, a hormone replacement drug, a radiopharmaceutical, an antidepressant, an antipsychotic, a stimulant, an asthma medication, a beta agonist, an inhaled steroid, an epinephrine or analog, a cytokine, or a cytokine antagonist.

76 . A medical device, comprising at least one isolated mammalian anti-dual integrin antibody that binds to the same region of a dual integrin protein as an antibody comprising at least one heavy chain or light chain CDR having the amino acid sequence of at least one of SEQ ID NOS: 1, 2, 3, 4, 5, or 6, wherein said device is suitable to contacting or administering said at least one anti-dual integrin antibody by at least one mode selected from parenteral, subcutaneous, intramuscular, intravenous, intrarticular, intrabronchial, intraabdominal, intracapsular, intracartilaginous, intracavitary, intracelial, intracelebellar, intracerebroventricular, intracollic, intracervical, intragastric, intrahepatic, intramyocardial, intraosteal, intrapelvic, intrapericardiac, intraperitoneal, intrapleural, intraprostatic, intrapulmonary, intrarectal, intrarenal, intraretinal, intraspinal, intrasynovial, intrathoracic, intrauterine, intravesical, bolus, vaginal, rectal, buccal, sublingual, intranasal, or transdermal.

77 . An article of manufacture for human pharmaceutical or diagnostic use, comprising packaging material and a container comprising a solution or a lyophilized form of at least one isolated mammalian anti-dual integrin antibody that binds to the same region of a dual integrin protein as an antibody comprising at least one heavy chain or light chain CDR having the amino acid sequence of at least one of SEQ ID NOS: 1, 2, 3, 4, 5, or 6.

78 . The article of manufacture of claim 77, wherein said container is a component of a parenteral, subcutaneous, intramuscular, intravenous, intrarticular, intrabronchial, intraabdominal, intracapsular, intracartilaginous, intracavitary, intracelial, intracelebellar, intracerebroventricular, intracollic, intracervical, intragastric, intrahepatic, intramyocardial, intraosteal, intrapelvic, intrapericardiac, intraperitoneal, intrapleural, intraprostatic, intrapulmonary, intrarectal, intrarenal, intraretinal, intraspinal, intrasynovial, intrathoracic, intrauterine, intravesical, bolus, vaginal, rectal, buccal, sublingual, intranasal, or transdermal delivery device or system.

79 . A method for producing at least one isolated mammalian anti-dual integrin antibody that binds to the same region of a dual integrin protein as an antibody comprising at least one heavy chain or light chain CDR having the amino acid sequence of at least one of SEQ ID NOS: 1, 2, 3, 4, 5, or 6, comprising providing a host cell or transgenic animal or transgenic plant or plant cell capable of expressing in recoverable amounts said antibody.

80 . At least one anti-dual integrin antibody produced by a method according to claim 79.

81 . At least one isolated mammalian anti-dual integrin antibody, comprising at least one human CDR, wherein said antibody specifically binds at least one epitope comprising at least 1-3, to the entire amino acid sequence of SEQ ID NO: 9.

82 . An dual integrin antibody according to claim 81, wherein said antibody binds dual integrin with an affinity of at least one selected from at least  $10^{-9}$  M, at least  $10^{-10}$  M, at least  $10^{-11}$  M, or at least  $10^{-12}$  M.

83 . An dual integrin antibody according to claim 81, wherein said antibody substantially neutralizes at least one activity of at least one dual integrin protein.

84 . An isolated nucleic acid encoding at least one isolated mammalian anti-dual integrin antibody having at least one human CDR, wherein said antibody specifically binds at least one epitope comprising at least 1-3, to the entire amino acid sequence of SEQ ID NO: 9.

85 . An isolated nucleic acid vector comprising an isolated nucleic acid according to claim 84.

86 . A prokaryotic or eukaryotic host cell comprising an isolated nucleic acid according to claim 85.

87 . A host cell according to claim 86, wherein said host cell is at least one selected from COS-1, COS-7, HEK293, BHK21, CHO, BSC-1, Hep G2, 653, SP2/0, 293, HeLa, myeloma, or lymphoma cells, or any derivative, immortalized or transformed cell thereof.

88 . A method for producing at least one anti-dual integrin antibody, comprising translating a nucleic acid according to claim 84 under conditions in vitro, in vivo or in situ, such that the dual integrin antibody is expressed in detectable or recoverable amounts.

89 . A composition comprising at least one isolated mammalian anti-dual integrin antibody having at least one human CDR, wherein said antibody specifically binds at least one epitope comprising at least 1-3, to the entire amino acid sequence of SEQ ID NO: 9, and at least one pharmaceutically acceptable carrier or diluent.

90 . A composition according to claim 89, further comprising at least one composition comprising an effective amount of at least one compound or protein selected from at least one of a detectable label or reporter, a TNF antagonist, an antirheumatic, a muscle relaxant, a narcotic, a non-steroid anti-inflammatory drug (NSAID), an analgesic, an anesthetic, a sedative, a local anesthetic, a neuromuscular blocker, an antimicrobial, an antipsoriatic, a corticosteroid, an anabolic steroid, an erythropoietin, an immunization, an immunoglobulin, an immunosuppressive, a growth hormone, a hormone replacement drug, a radiopharmaceutical, an antidepressant, an antipsychotic, a stimulant, an asthma medication, a beta agonist, an inhaled steroid, an epinephrine or analog, a cytokine, or a cytokine antagonist.

91 . An anti-idiotypic antibody or fragment that specifically binds at least one isolated mammalian anti-dual integrin antibody having at least one human CDR, wherein

said antibody specifically binds at least one epitope comprising at least 1-3, to the entire amino acid sequence of SEQ ID NO: 9.

92 . A method for diagnosing or treating a dual integrin related condition in a cell, tissue, organ or animal, comprising

- 5 (a) contacting or administering a composition comprising an effective amount of at least one isolated mammalian anti-dual integrin antibody having at least one human CDR, wherein said antibody specifically binds at least one epitope comprising at least 1-3, to the entire amino acid sequence of SEQ ID NO: 9, with, or to, said cell, tissue, organ or animal.

93 . A method according to claim 92, wherein said effective amount is  
10 0.001-50 mg/kilogram of said cells, tissue, organ or animal.

94 . A method according to claim 92, wherein said contacting or said administering is by at least one mode selected from parenteral, subcutaneous, intramuscular, intravenous, intrarticular, intrabronchial, intraabdominal, intracapsular, intracartilaginous, intracavitary, intracelial, intracelebellar, intracerebroventricular, intracolic, intracervical,  
15 intragastric, intrahepatic, intramyocardial, intraosteal, intrapelvic, intrapericardiac, intraperitoneal, intrapleural, intraprostatic, intrapulmonary, intrarectal, intrarenal, intraretinal, intraspinal, intrasynovial, intrathoracic, intrauterine, intravesical, bolus, vaginal, rectal, buccal, sublingual, intranasal, or transdermal.

95 . A method according to claim 92, further comprising administering,  
20 prior, concurrently or after said (a) contacting or administering, at least one composition comprising an effective amount of at least one compound or protein selected from at least one of a detectable label or reporter, a TNF antagonist, an antirheumatic, a muscle relaxant, a narcotic, a non-steroid anti-inflammatory drug (NSAID), an analgesic, an anesthetic, a sedative, a local anesthetic, a neuromuscular blocker, an antimicrobial, an antipsoriatic, a  
25 corticosteroid, an anabolic steroid, an erythropoietin, an immunization, an immunoglobulin, an immunosuppressive, a growth hormone, a hormone replacement drug, a radiopharmaceutical, an antidepressant, an antipsychotic, a stimulant, an asthma medication, a beta agonist, an inhaled steroid, an epinephrine or analog, a cytokine, or a cytokine antagonist.

96 . A medical device, comprising at least one isolated mammalian anti-  
30 dual integrin antibody having at least one human CDR, wherein said antibody specifically binds at least one epitope comprising at least 1-3, to the entire amino acid sequence of SEQ ID NO: 9, wherein said device is suitable to contacting or administering said at least one anti-dual integrin antibody by at least one mode selected from parenteral, subcutaneous, intramuscular, intravenous, intrarticular, intrabronchial, intraabdominal, intracapsular,  
35 intracartilaginous, intracavitary, intracelial, intracelebellar, intracerebroventricular, intracolic, intracervical, intragastric, intrahepatic, intramyocardial, intraosteal, intrapelvic,

intrapericardiac, intraperitoneal, intrapleural, intraprostatic, intrapulmonary, intrarectal, intrarenal, intraretinal, intraspinal, intrasynovial, intrathoracic, intrauterine, intravesical, bolus, vaginal, rectal, buccal, sublingual, intranasal, or transdermal.

5 97 . An article of manufacture for human pharmaceutical or diagnostic use, comprising packaging material and a container comprising a solution or a lyophilized form of at least one isolated mammalian anti-dual integrin antibody having at least one human CDR, wherein said antibody specifically binds at least one epitope comprising at least 1-3, to the entire amino acid sequence of SEQ ID NO: 9.

10 98 . The article of manufacture of claim 97, wherein said container is a component of a parenteral, subcutaneous, intramuscular, intravenous, intrarticular, intrabronchial, intraabdominal, intracapsular, intracartilaginous, intracavitary, intracelial, intracelebellar, intracerebroventricular, intracolic, intracervical, intragastric, intrahepatic, intramyocardial, intraosteal, intrapelvic, intrapericardiac, intraperitoneal, intrapleural, intraprostatic, intrapulmonary, intrarectal, intrarenal, intraretinal, intraspinal, intrasynovial, 15 intrathoracic, intrauterine, intravesical, bolus, vaginal, rectal, buccal, sublingual, intranasal, or transdermal delivery device or system.

20 99 . A method for producing at least one isolated mammalian anti-dual integrin antibody having at least one human CDR, wherein said antibody specifically binds at least one epitope comprising at least 1-3, to the entire amino acid sequence of SEQ ID NO: 9, comprising providing a host cell or transgenic animal or transgenic plant or plant cell capable of expressing in recoverable amounts said antibody.

100 . At least one anti-dual integrin antibody produced by a method according to claim 99.

101 . Any invention described herein.

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